REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated April 21, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1 – 5 and 8 - 10 are being canceled without prejudice or disclaimer, while claim 6 is being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. Claims 22 – 28 stand as withdrawn from consideration in this application. Applicant hereby submits that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejections

The Examiner rejected claims 11-12 and 15-20 under 35 U.S.C. §102(e) as being anticipated by US Patent No. 6,842,783 to Boivie. The Examiner rejected claims 1-5 and 8-10 under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,857,025 to Maruyama et al. in view of US Patent No. 5,774,668 to Choquier et al. Further, the Examiner rejected claims 6-7 under 35 U.S.C. § 103(a) as being unpatentable over Boivie '783 in view US Patent No. 6,445,704 to Howes et al. Even more, claims 13-14 and 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Boivie '783 in view of Choquier '668. Applicants have reviewed the above rejections, and hereby respectfully traverse.

Next, the present invention as now recited in claim 6 is directed to a method of allocating computer resources to each of a plurality of users connected to a computer system via an external network, the computer system including a plurality of computers interconnected via an internal network for processing an input packet from each user, and the method comprising the steps of: for a use contract between each user and the computer system, setting from each user a virtual IP address to be used as an access destination address of a process request packet, as an address to be used for accessing the user system in the computer system, determining from the process request packet which of an access source IP address and an access destination IP address in the process request packet is used as

information necessary for identifying a user related to the process request packet, and urging each user to input the virtual address; urging each user to input a service level condition as a portion of the use contract, the service level condition including at least upper or lower limits of the number of computers allocated to process the process request packet supplied from each user; and allocating a computer for processing the process request packet supplied from each user in accordance with the input service level condition, and recording a history of the number of allocated computers.

As recited in claim 7, the present invention is directed to a method of allocating computer resources to each of a plurality of users connected to a computer system via an external network, the computer system including a plurality of computers interconnected via an internal network for processing an input packet from each user, and the method comprising the steps of: for a use contract between each user and the computer system, setting from each user a virtual IP address to be used as an access destination address of a process request packet, as an address to be used for accessing the user system in the computer system, determining from the process request packet which of an access source IP address and an access destination IP address in the process request packet is used as information necessary for identifying a user related to the process request packet, and urging each user to input the virtual address; urging each user to input a service level condition as a portion of the use contract, the service level condition including at least a use rate of computers allocated to process the process request packet supplied from each user; and allocating a computer for processing the process request packet supplied from each user in accordance with the input service level condition, and recording a history of the use rate of allocated computers.

As recited in claim 11, the present invention is also directed to a computer resource allocating method for a computer system having a plurality of computers interconnected via a network and processing a request from each of a plurality of users, the method automatically changing a computer allocation to each user, and the method comprising the steps of: monitoring an operation state of the computer resources; comparing the operation state with a service level of each user; judging from the comparison whether a computer allocation to each user is to be changed; changing a computer allocation table of each user; and changing charge information in accordance with a change in the computer allocation.

As recited in claim 12, the present invention is directed to a computer resource allocating method for a computer system having a plurality of computers interconnected via a network and processing a request from each of a plurality of users, the method automatically

changing a computer allocation to each user, and the method comprising the steps of: receiving an operation state of the computer resources; comparing the operation state with a service level of each user; judging from the comparison whether a computer allocation to each user is to be changed; and if it is judged that a change in the computer allocation is necessary, changing a computer allocation table of each user.

As recited in claim 15, the present invention is directed to a computer resource allocating method for a computer system having a plurality of computers interconnected via a network each being set with a standard access root file, the computer system processing a request from each of a plurality of users, the method automatically changing a computer allocation to each user, and the method comprising the steps of: receiving an operation state of the computer resources; comparing the operation state with a service level of each user; judging from the comparison whether a computer allocation to each user is changed; changing a computer allocation table of each user; and instructing to change the root file name of each computer.

As recited in claim 16, the present invention is directed to a computer system having a plurality of computers and computer resource allocating means interconnected via a network and processing a request packet from each of a plurality of users, said computer resource allocating means comprising: means for receiving an operation state of the computer resources; means for comparing the operation state with a service level of each user and judging from the comparison whether a computer allocation to each user is changed; and means for changing a computer allocation table of each user if the computer allocation table is to be changed.

As recited in claim 18, the present invention is directed to a computer resource allocating method for a computer system having one or more computers interconnected via a network and processing a request packet from each of a plurality of users, each computer performing a time divisional operation of a plurality of operating systems each utilizing a dedicated resource, the computer system being capable of defining an execution rate of the time divisional operation, and the method for automatically changing a computer allocation to each user, comprising the steps of: monitoring an operation state of the computer resources; comparing the operation state with a service level of each user; judging from the comparison whether a rate of the time divisional operation for each user is changed; changing a time divisional operation rate table of each user; and changing charge information in accordance with a change in the time divisional operation rate.

As recited in claim 19, the present invention is directed to a computer resource allocating method for a computer system having one or more computers interconnected via a network and processing a request packet from each of a plurality of users, each computer performing a time divisional operation of a plurality of operating systems each utilizing a dedicated resource, the computer system being capable of defining an execution rate of the time divisional operation, and the method for automatically changing a computer allocation to each user, comprising the steps of: receiving an operation state of the computer resources; comparing the operation state with a service level of each user; judging from the comparison whether a rate of the time divisional operation for each user is changed; and changing a time divisional operation rate table of each user.

Lastly, as recited in claim 20, the present invention is directed to a computer system having one or more computers and computer resource allocating means interconnected via a network and processing a request packet from each of a plurality of users, each computer performing a time divisional operation of a plurality of operating systems each utilizing a dedicated resource, the computer system being capable of defining an execution rate of the time divisional operation, and said computer resource allocating means comprising: means for receiving an operation state of the computer resources; means for comparing the operation state with a service level of each user and judging from the comparison whether a computer allocation to each user is changed; and means for changing a computer allocation table of each user if the computer allocation table is to be changed.

First, with respect to claims 1 – 5 and 8 – 10, these claims are being canceled without prejudice or disclaimer, thereby rendering this rejection moot.

Next, in contrast to the present invention, the system of Boivie '783 monitors a response (outbound) bandwidth of each server, compares it with a service level agreement (SLA), and provides a request (inbound) bandwidth if it falls within the SLA, and drops a request packet if it exceeds SLA (See Abstract of Boivie '783). Since the system of Boivie '783 is intended to narrow inbound bandwidths, and not to increase/decrease performance of servers by increasing/decreasing servers, Boivie '783 by itself fails to disclose a "changing a computer allocation table" step and a "changing charge information" step, as claimed for the present invention in at least claims 11, 12, 16 and 17.

With respect to claim 15, Boivie '783 by itself again does not disclose a "changing a computer allocation table" step, nor a "instructing to change the root file name of each computer" step in combination with the receiving step, the comparing step and the judging

step. Rather, Boivie '783 shows a CBM 110 that first selects requests like a load balancer, selects a server and then sends the selected requests to the selected server to process the requests. Unlike the present invention, this reference further does not disclose a "instructing to change the root file name of each computer" step that changes a file name so that, when a server is added, the added server can correctly select a target file to be referred while avoiding overheads of data copying due to mirroring of disks.

With respect to claims 18 - 20, this feature of the present invention is intended to expand the recitation of claim 11 to LPAR (logical partitioning), wherein the "changing a computer allocation table" step is changed to the "changing a time divisional operation rate table" step. However, Boivie '783 fails to disclose the "changing a time divisional operation rate table" step, because the system of this reference is intended to narrow inbound bandwidths, as discussed above.

Consequently, as shown above, Boivie '783 does not show anticipate each and every feature of the present invention in at least the claims now on file.

With respect to claims 6 and 7, the present invention as recited therein is directed to a method of allocating computer resources, and recited as a "setting from each user a virtual IP address to be used as access destination address" step, a "urging each user to input a service level condition including at least upper or lower limit of the number of computers allocated" step and a "allocating computers and recording a history of the number of allocated computers" step.

In contrast, Boivie '783 discloses in col. 4, lines 4-36, that the Service Level Agreements are in the form of (minimum, maximum) bandwidth bounds. The system enables the outbound traffic to comply with SLA by limiting the inbound traffic. The inbound traffic is limited in such a manner that packets larger than the threshold value are dropped and packets which are not dropped are sent to one of the servers supporting the same service. However, Boivie '783 by itself does not increase/decrease the servers, and thus fails to disclose or suggest a "allocating computers and recording a history of the number of allocated computers" step and a "urging each user to input a service level condition including at least upper or lower limit of the number of computers allocated" step, as recited by at least the claims for the present invention as discussed above.

The secondary reference of Howes '704 is directed to a load balancer that connects a plurality of physical servers at the subsequent stage to distribute loads to the physical servers. Applicants will contend that the load balance is like a virtual apparatus having a virtual

address as viewed from a client at the front stage. As such, Applicant will further contend that this reference has little relevance to the present invention in that it does not provide any disclosure, teaching or suggestion that makes up for the deficiencies in Boivie '783 such that their combination could now render each and every feature of the present invention as claimed.

Even more, the tertiary reference of Choquier '668 was cited only for showing features in the dependent claims. Thus, this reference fails to show or suggest any teaching that would make up for the deficiencies in either Boivie '783 or Howes '704.

Rather, even if these three references were combined, they would fall short of showing or suggesting, among other features, a "allocating computers and recording a history of the number of allocated computers" step, a "urging each user to input a service level condition including at least upper or lower limit of the number of computers allocated" step, a "changing a computer allocation table" step with a "changing charge information" step, and a "instructing to change the root file name of each computer" step that changes a file name so that, when a server is added, the added server can correctly select a target file to be referred while avoiding overheads of data copying due to mirroring of disks "changing a time divisional operation rate table" step, as is recited in the various claims of the present invention.

Applicants will respectfully submit that the present invention as claimed is distinguishable and thereby allowable over the prior art of record.

Conclusion

In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

Respectfully submitted,

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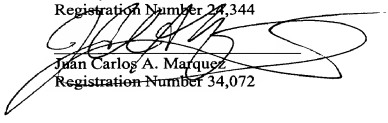

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